

WHAT IS CLAIMED IS:

1. A compound constructed by N (N is an integer of 2 or more) kinds of phases containing at least one kind of element selected from a group consisting of Co, Ti, V, Cr, Mn, Fe, Ni, Si, Pb, Bi and Al, wherein at least one kind (N-1) to kinds among said N kinds of phases are continuous phases, and the other phases are discontinuous phases.

2. A compound according to Claim 1, wherein a refractive index of the compound changes in accordance with an incident light when the incident light enters, and assuming that the refractive index is n_0 at a time when no incident light enters and an intensity of the incident light is I, and an absolute value n of the refractive index to be observed is represented by $n = n_0 + n_2 I$, a value of n_2 lies in a range of greater than $1.0 \times 10^{-9} \text{ (m}^2/\text{W)}$ to less than $1.0 \times 10^{-7} \text{ m}^2/\text{W}$).

3. A compound according to Claim 2, wherein the refractive index changes in a range of greater than 2.50×10^{-7} seconds to less than 3.50×10^{-7} seconds after the incident light enters, and the refractive index returns to an originally set refractive index within a time interval in a range of greater than 2.5×10^{-7} to less than 1.0×10^{-2} after eliminating the incident light.

4. A compound according to Claim 1, further comprising an oxide containing a Co oxide of 60 to 95 weight % as converted into an oxide of CoO and at least one kind of element selected from a group consisting of Si, Ti, Al, Pb and Bi as a remaining part.